REMARKS

The application is believed to be in condition for allowance.

Claims 20-22 have been amended to remedy the stated basis of rejection under section 112, second paragraph. Withdrawal of the rejection is solicited.

The claims have been amended in view of specification page 7, lines 20-22 to make explicit that it is the cutting distal end which is being recited as being made of a non-abrasive material.

Claim 1 was rejected as obvious over TOPIARZ DE 19949071 in view of LANE 5,924,204.

Claims 1, 6-8, and 11-13, 15-16, 18, and 20-21 were rejected as obvious over PIERCE 5,353,465 in view of JP 05-321189.

Claims 3, 14, 17, 19, and 22 were also rejected as obvious over PIERCE 5,353,465 in view of JP 05-321189.

Claims 9 was rejected as obvious over PIERCE in view of JP 05-321189 and SANDT 4,137,588.

Claim 10 was rejected as obvious over PIERCE in view of JP 05-321189, SANDT, and TOPIARZ.

The Official Action is correct that the recited invention must be distinguish from the prior art based on recited structural features of the invention. However, recitations that

have been given no patentable weight during the last Official Action do recite structural features of the invention.

TOPIARZ is directed to a device with a frequency of at least 10 kHz and preferably above 15 kHz (page 5 lines 5-7). This is because TOPIARZ requires an extreme acceleration over a short path (a few thousandths of a millimeter) in order to achieve a high impact strength with each individual blow (page 5, lines 1-4). The high impact is necessary because the TOPIARZ device operates as a "jackhammer" crushing the joint compound which is being treated.

LANE teaches (Figures 2-4) a steel distal end 20 (column 4, lines 49-54) that is the actually cutting surface and non-metal material 32 located along the tool's length. See in particular Figures 3-3A.

Thus, if LANE were used to modify TOPIARZ, a blade would result that had a steel distal end contact portion for actually cutting and the epoxy resin 32 located along the tool's length but not at the distal end contact portion.

Thus, amended claim 1 would not be rendered obvious as the combination would not provide for a distal end contact portion of the head for removing the mastic is made of a non-abrasive material selected from polyetheretherketones, polyoxymethylenes, polyetherimides or epoxy resins with a hardness sufficient to cut off chips of the aircraft mastic from joints in interiors of aircraft tanks and resist wear, but not

too hard so as to give rise to scratches, under the effect of vibratory alternating movement, to the interior surface of the aircraft tanks.

Withdrawal of the claim 1 as obvious over TOPIARZ in view of LANE is solicited.

The remaining rejections rest on the combination of PIERCE and JP 05-321189.

JP 05-321189 discloses a composite material suitable for appropriate applications, e.g., the doctor blade where damage to the paper rollers must be avoided. The concerns present in the application of the doctor blade, however, are not present in the tool of PIERCE where the scraper is used to scrap barnacles off of ship hulls (column 1, lines 5-12).

One of skill would recognize that there is no concern about minor scratching the ship's hull. Indeed, after the scraping treatment, the ship's hull will be painted or retain a painted surface.

The rejection is not based on common sense as the rejection does not take into account the scale of hardness of the different applications/uses of the invention and the applied references.

One needs to focus on the fact that there is a scale of hardness. For example, in the invention the scale of hardness is specific to scrapping mastic that is hard but not too much because

it's a polymer. Previously, such mastic was scrapped "by hand" with a manual tool.

In the PIERCE barnacle application/use, the scale of hardness needed is much greater as barnacles are shells and are very hard because they have a mineral composition. These barnacles/shells are really "cemented" to the hull and one has to use a very, very hard blade and heavy tool to remove the shell from the ship's hull. There is no concern about damaging the hull as the paint may be damaged without any problem as the hull can be grinded and repainted.

The JP 05-321189 material is disclosed for a doctor blade used for scraping paper tailings, etc. off the surface of roll for paper making machine. That scale of hardness for a doctor blade scraping paper tailings is very different from the scale of hardness for removing barnacles/shells cemented to a ship's hull. There is no teaching in JP 05-321189 that this material would be appropriate for removing barnacles cemented to a ship's hull.

Thus, there is no reason to believe that the JP 05-321189 material would be suitable as a substitute for the PIERCE purpose of removing barnacles.

Additionally, there is no viable showing that one of skill would choose such a complex composite material for the simple job of scrapping barnacles of a ship's hull. One of skill would not choose a more expensive composite material unless there was a real advantage in doing so.

Note that the latest guidance from the Supreme Court (*KSR International Co. v. Teleflex Inc.* Slip Opinion No. 04-1350 Decided April 30, 2007) provides that the teaching, suggestion, motivation test captures the concepts that an invention composed of several elements is not proved obvious merely by demonstrating that each element was, independently, known in the prior art, and notes the importance to identify the reason that would have prompted a person of ordinary skill in the art to combine the elements as the new invention does. See the Syllabus which notes that inventions usually rely upon building blocks long since uncovered, and claimed discoveries almost necessarily will be combinations of what, in some sense, is already known.

The rejection just finds known "building blocks" and fails to offer a viable reason for discarding a conventional scrapper for a comparatively complex composite material scrapper.

Thus, this obviousness rejection/combination improperly rests on pure hindsight. The analysis is not whether the prior art had the technology/materials to achieve the invention, but rather the invention is taught or suggested by the prior art.

Numerous Federal Circuit decisions emphasize that obviousness rejections over a combination of elements found in two or more prior art references are improper unless the prior art suggests their a combination. *E.g. McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1351-52, 60 USPQ2d 1001, 1008 (Fed. Cir. 2001) (" 'the central question is whether there is

reason to combine [the] references,' a question of fact drawing on the *Graham* factors"); *In re Kotzab*, 208 F.3d 1365, 1370, 54 USPQ2d 1308, 1316 (Fed. Cir. 2000) ("to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant.").

In re Dembiczak, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) ("Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is a rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.") ("The range of sources available [to show a suggestion, teaching, or motivation to combine], however, does not diminish the requirement for actual evidence. That is, the showing must be clear and particular."

"When the incentive to combine the teachings of the references is not readily apparent, it is the duty of the examiner to explain why of the reference teachings are proper." *Ex parte Skinner*, 2 USPQ2d 1788, 1790 (Bd. App. & Int'f 1986), *see also Ex parte* Clapp, 277 USPQ 972, 973 (Bd. App. & Int'f 1985) (noting that, to support obviousness, "either the references must expressly or impliedly suggest the claimed combination or the examiner must present a convincing

line or reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references. . . . [S]implicity and hindsight are not proper criteria for resolving the issue of obviousness.")

The Examiner has only shown that a suitable material was in the prior art, and has not shown that one of skill would use this material to modify PIERCE. It is not enough to show that the modification would be possible, the modification must be obvious to render the claim unpatentable.

The Official Action has only offered a *pro forma* reason why the JP 05-321189 material would be incorporated into PIERCE. Other than pointing to some general advantages mentioned in the JP 05-321189 "USE/ADVANTAGE" section ("The doctor blade is used for scraping paper tailings, etc. off the surface of roll for paper making machine, etc; it shows close contact with the roll surface, does not cause damage to rool surface, has improved resistance to wear and ensures good scrapping operation"), the rejection does not seriously consideration whether this material would be suitable for the tool of PIERCE or whether it would be an economically feasible choice.

By analogy, although it would be possible to paint a ship's hull with an artist's fine brush, such an approach would not be obvious to one of skill as it is not economic or practical.

The rejection does not pass a common sense test as there is no viable showing that one of skill would choose such a complex composite material for the simple job of scrapping barnacles of a ship's hull.

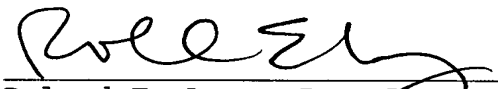
Reconsideration and allowance of all the claims are respectfully requested.

Should there be any matters that need to be resolved in the present application; the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

YOUNG & THOMPSON



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